

# Super Bowl XLVI Sustainability Report

2012 Indianapolis Super Bowl Host Committee



Prepared by Summer Keown and the Indianapolis Super Bowl Environmental Committee July 2012





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# SUPER BOWL XLVI ENVIRONMENTAL PROGRAMS OVERVIEW

The following is a summary of the environmental sustainability programs and projects of the 2012 Indianapolis Super Bowl. These programs include those initiated by the 2012 Indianapolis Super Bowl Host Committee, NFL programs associated with each Super Bowl, and programs initiated and carried out by local governmental and non-profit organizations as a part of overall Super Bowl planning and legacy. The goal of Super Bowl XLVI environmental programs was to reduce the environmental impact of the Super Bowl and to leave a positive lasting environmental impression in Indiana that would continue long after the game had been played.

The Host Committee established an Environmental Programs Committee, co-chaired by Kären Haley and Carey Hamilton, made up of more than 50 members representing local environmental companies, non-profit organizations and governmental entities. This committee worked with NFL and Host Committee staff to plan the Host Committee's environmental programs during the two years prior to Super Bowl XLVI.

The NFL's Environmental Program was in its 17th year, developing projects for each Super Bowl to address solid waste, food waste, material reuse, and books and sports equipment collection for children in need, as well as the overall climate change impact of Super Bowl events.

The following results can be attributed to the environmental programs of Super Bowl XLVI:

- ✓ 2.888 trees planted through the 2,012 Trees by 2012 program.
- ✓ 1,402,681 pounds of CO<sub>2</sub> emissions reduced through the 1st & Green program.
- ✓ 2,555,754 gallons of water saved through 1st & Green.
- √ 65 environmental projects completed by Green Corps members throughout Indiana.
- √ 49,185 pounds of electronics collected for recycling by RecycleForce.
- √ 32 IndyParks parks and trails cleaned and refurbished during the Super City Clean & Green day.
- ✓ 32,987 items collected during the NFL's Super Kids-Super Sharing event, including 19,276 books, 3,557 pieces of sports equipment, and 10,154 school supplies.
- ✓ More than 7,000 Super Bowl volunteers signed the Green Team pledge.
- √ 181 boxes of clothing were donated to Goodwill Indy by Super Bowl volunteers.
- √ 357 pairs of new shoes were donated to Samaritan's Feet by Super Bowl volunteers.
- √ 144 tons of recyclable materials were collected from Super Bowl venues including Lucas
  Oil Stadium, the NFL Experience, and the Super Bowl Village.
- √ 46,000 pounds of prepared food was recovered by Second Helpings.
- ✓ More than five miles of decorative materials were recovered and donated.
- √ 15,000 megawatt hours of renewable energy were donated by Green Mountain Energy to offset the energy usage at Lucas Oil Stadium and other Super Bowl venues.



✓ Two tons of food was collected from the JW Marriott's main kitchen for composting.

The Super Bowl Village was held on reconstructed Georgia Street, a project developed as a part of the Sustainable Sites Initiative (SITES) program.

The Chase Near Eastside Legacy Center was constructed with the goal of LEED Certification.

The U.S. Environmental Protection Agency calculated that Super Bowl programs reduced greenhouse gases by 642 metric<sup>1</sup> tons (1.3 million pounds), including:

- √ 500 metric tons from Super Bowl venue recycling
- ✓ 57 metric tons from the three electronics recycling drives
- ✓ 85 metric tons from 2,012 Trees by 2012 tree plantings (over the next 5 years)

This report was designed with the purpose of recording the environmental programs implemented as a part of Super Bowl XLVI and as an avenue to share the results; to be used as a road map for organizers of future large sporting and other events.

<sup>&</sup>lt;sup>1</sup> A metric ton (MT) equals 1,000 kilograms or 2,205 pounds.



## **COMMUNITY PROGRAMS**

The 2012 Super Bowl Host Committee's focus was to not only serve as the city's ambassador to incoming Super Bowl fans, guests, and corporations, but to create projects that would continue to have a long-lasting positive environmental impact in Indiana. To assist in accomplishing this goal, the committee engaged communities, including schools, non-profit organizations, local businesses and units of government, to participate in and lead an array of sustainable environmental initiatives.

## **2,012 TREES BY 2012**





2,012 Trees by 2012 is a program that was developed as a part of the Near Eastside's Quality of Life Plan with the goal of planting 2,012 trees on the Near Eastside of Indianapolis by the 2012 Super Bowl. This program was a partnership between Keep Indianapolis Beautiful, the John H. Boner Community Center, and the 2012 Indianapolis Super Bowl Host Committee.

The first tree planting event was held on March 28, 2009. Throughout the next three years, Keep Indianapolis Beautiful staff, donor companies and volunteers planted trees. All trees planted were Indiana native species, sited in various locations in Near Eastside neighborhoods and parks. See Appendix A for detailed information about the tree species, planting locations and dates.





On April 21, 2011, the "Passing the Shovel" tree planting event was held on the campus of Arsenal Technical High School. This ceremonial tree planting passed the "golden shovel" of the NFL's environmental programs from the Super Bowl XLV host community in North Texas to the Super Bowl XLVI host community in Indianapolis.

The 2,012<sup>th</sup> tree was planted on October 6, 2011 as a part of the Eli Lilly Day of Service at Pogue's Run. Exceeding the program's goal, the 2,888<sup>th</sup> tree was planted on May 10, 2012 at the last official event held by the 2012 Super Bowl Host Committee. The final tree planting took place at Arsenal Technical High School where the "golden shovel" was passed off to next year's host city, New Orleans.



Companies and organizations that contributed funding to the 2,012 Trees by 2012 program included:

- Anthem/Wellpoint
- Amos W. Butler Audubon Society
- City of Indianapolis
- Community Health Network
- Crowe Horwath LLP
- Dow AgroSciences
- Eli Lilly and Company
- Event and Arena Marketing Conference
- Green Mountain Energy
- Home Depot Foundation
- Indiana Department of Natural Resources
- Indianapolis Colts
- Indiana Power & Light Company
- International Interior Design Association

- JP Morgan Chase
- Katz, Sapper & Miller
- Metropolitan Indianapolis Board of Realtors (MIBOR)
- National Fish and Wildlife Foundation (in partnership with FedEx)
- Nestle Waters
- Nina Mason Pulliam Charitable Trust
- North Central IN School Study Council
- Roche Diagnostics
- Shrewsberry
- St. Paul's Episcopal Church
- Trinity Episcopal Church
- United Water

The Materials Management Branch of the U.S. Environmental Protection Agency (U.S. EPA) calculated that by planting these trees, 84.83 metric tons of CO<sub>2</sub> will be sequestered during the next five years. Over 40 years, approximately 11,495 metric tons of carbon dioxide emissions will be sequestered. These calculations show that not only will the trees planted as a part of the 2,012 Trees by 2012 program beautify the neighborhoods; they will also significantly improve the air quality and reduce pollution. See Appendix B for detailed CO<sub>2</sub> sequestration due to tree planting calculations.



## 1<sup>ST</sup> & GREEN



1st & Green is a web-based program that was developed by INNOVATIVE for the 2012 Indianapolis Super Bowl Host Committee, with calculations provided by August Mack Environmental. The goal of 1st & Green was to provide an interactive way for anyone, regardless of their location and schedule, to participate in the environmental programs of the 2012 Indianapolis Super Bowl Host Committee.

1st & Green was launched on January 29, 2010 and continued through February 2012. The 1st & Green program allowed individuals and households to create an account at www.1standGreen.com. Through this account, they were able to log their everyday actions that reduced carbon emissions and water usage, including:

- Carpooling
- Riding a bicycle instead of driving
- Taking public transportation
- Teleworking
- Turning off the water while brushing their teeth
- Using reusable water bottles instead of disposable bottles
- Using reusable shopping bags instead of paper or plastic bags
- Planting trees
- Reducing home energy usage (individual/household users only)
- Recycling (individual/household users only)



The 1st & Green web site maintained an ongoing calculation for each account holder that showed their total amount of carbon emissions reduced (in pounds) and water saved (in gallons). These individual calculators fed into the master site calculator, which showed the cumulative impact of all 1st & Green participant's activities.

The total amount of carbon emissions reduced through the 1st & Green program was 1,402,681 pounds of carbon. The total amount of water saved by 1st & Green program participants was 2,555,754 gallons of water.

The 1st & Green Group Challenge began on August 20, 2011 and concluded on January 13, 2012. This challenge allowed groups in five categories (business, government, non-profit, K-12, and other) to compete to see who could reduce their carbon emissions and water usage the most. The winner in each category was recognized on stage in the Super Bowl Village and received a 1st & Green recycled glass plaque. The top 5 groups in each of the two categories (carbon and water) were updated continuously on the 1st & Green Leader Board web site.

The group and individual/household winners of the 1st & Green Challenge were:

Organization Type	Carbon	Water
Business	August Mack Environmental	Hilton Garden Inn
Government	Indianapolis Airport Authority	Indianapolis Airport Authority
Non-Profit	Keep Indianapolis Beautiful	Hancock County Athlete
		Leadership Program (Special
		Olympics)
K-12 Schools	"Lyfe 4 Green" of Centerville, IN	"Green Bulldogs" of Centerville,
		IN
"Other" groups	Naptown Roller Girls	IUPUI Housing and Residential
		Life
Individual/Household	David Hughes	Penny Ausmus

The winners were recognized on the Pepsi Stage in the Super Bowl Village on the morning of Sunday, January 29, 2012.

In addition to the 1st & Green Challenge, the 1st & Green web site contained numerous tips on easy ways to "go green", provided by local environmental organizations. Green Corps members hosted "Easy Green Tips" videos, produced by INNOVATIVE, were available on the web site.







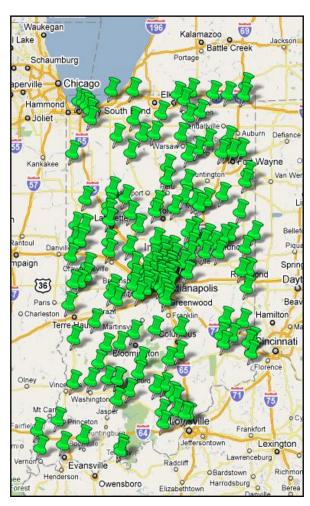
## **GREEN CORPS**

The Green Corps was created and coordinated by the 2012 Indianapolis Super Bowl Host Committee to involve high school students from the Class of 2012 in environmental projects throughout the state of Indiana.



Each school district in Indiana was invited to nominate one student from their Class of 2012. This student was defined as an individual with an interest in the environment, who was active in his or her school and community, to represent the community as a Green Corps member. One hundred seventy five Green Corps members were nominated in early 2010 to participate in this program. Schools chose their own nomination methods. For example, Ben Davis High School in Indianapolis held an essay contest to select the student. In other school districts, the Green Corps member was chosen by his or her reputation for being involved in environmental, community, and school activities.

On Earth Day weekend in April of 2010, Green Corps members were invited to attend an orientation held at the IUPUI Herron School of Arts and Design in Indianapolis. At this meeting, Green Corps members heard from speakers representing the National Energy Foundation, United Water, and others. Keep Indianapolis Beautiful showed the Green Corps the proper way to plant and care for trees. Members were asked to participate in a tree planting and a





community clean-up project in their home communities during the following year. County contacts from Project Learning Tree (Department of Natural Resources) and the Indiana Solid Waste Management Districts were shared with Green Corps members to assist them in finding projects in which to participate. Many of the members opted to organize independent clean-up projects with friends and schoolmates. Following completion of their projects, members submitted project completion forms to share what they did and what they learned with the 2012 Super Bowl Host Committee.







On Earth Day Weekend, April 2011, Green Corps members were invited to the Indiana Government Center in Indianapolis for their second full meeting. Jack Groh, Environmental Program Director for the NFL, spoke to the members about environmental and civic responsibility and how they could help improve their communities, not only during the Super Bowl, but as a way of life.

At this meeting, Green Corps members were organized in regional groups to create environmental projects of their own design. Facilitators from the Marion County Commission on Youth (MCCOY) worked with the groups to brainstorm ideas about what projects the Green Corps members would like to do to address needs they saw in their home communities. Each group had the opportunity to apply to the Host Committee for a mini-grant of up to \$500 to carry out the project. The groups had the option of focusing on one project for their area, or they could individually create a project to carry out at their school or in their community.

Between the second Green Corps meeting and Super Bowl XLVI, Green Corps members carried out a total of 65 projects. These included tree plantings, organizing recycling projects, clean-up days, and environmental education projects, such as:





- Hosting an Environmental Education Day at Mary Bryan
   Elementary facilitating environmental activities for the fourth
   grade class, including a "trash pizza," recycling relay race,
   building cardboard robots out of recyclable materials,
   planting seeds, and conducting an environmental assembly
   for the entire school.
- Filming a series of "Easy Green Tips" videos, showing viewers easy ways to make an environmental impact, made available on the 1<sup>st</sup> & Green web site.
- Installing recycling bins at Indianapolis Metropolitan High School, South Putnam High School, Blue River Valley High School, Columbia City High School, Seymour High School and Shoals High School.

 Presenting to elementary school students at the Lugar Energy Summit at the Indianapolis Children's Museum about Super Bowl environmental programs and ways to go green.

- Organizing community clean-up days.
- Hosting an eco-craft day at Tri-West High School.
- Teaching students how to make "green" cleaning products.
- Organizing an eco-week at Homestead High School with a recycling contest.
- Setting up a hearing aid and eyeglass recycling drop-off program.
- Presenting to classes about the 1st & Green program.
- Planting trees in Evansville, Fort Wayne, South Bench, Goshen, Richmond and Centerville.
- Organizing a soil remediation project.
- Planting organic gardens.
- White River clean-up projects.







Two Green Corps members, pictured below, Gigi Cabello and Kole Smith, were named as XLVI Faces of Super Bowl XLVI. They filmed videos for www.XLVIFaces.com to share with the public about how they came to be involved with the Super Bowl and what it meant to them.





On January 27, 2012 the Green Corps members were recognized on stage in the Super Bowl Village for their efforts to benefit Indiana's environment and to thank them for being a part of Super Bowl XLVI's environmental programs.



For more detailed information about Green Corps projects, see Appendix C.



## **ELECTRONICS RECYCLING**

The 2012 Indianapolis Super Bowl Host Committee partnered with RecycleForce to hold three electronics recycling drives. RecycleForce is an Indianapolis-based non-profit organization that provides recycling services for electronic waste while also serving as life-changing workforce training to formerly incarcerated individuals to support their re-entry back into society.

Three electronics recycling drives were held on these dates:

- September 21, 2011: Volunteer Pep Rally at Conseco (Banker's Life) Fieldhouse
- October 22, 2011: Super City Clean & Green Day at Garfield Park
- December 28, 2011: "Zooper Bowl" electronics recycling drive at the Indianapolis Zoo



A total of 49,185 pounds of electronics were collected in total from the three electronics recycling drives, including:

- 4,185 pounds at the Volunteer Pep Rally
- 1,994 pounds at the Super City Clean & Green Day
- 43,006 pounds at the "Zooper Bowl"



The items collected included:

- 200 computers
- 301 computer monitors
- 238 printers
- 368 televisions
- 85 DVD/VCR players
- 120 radios
- Miscellaneous other items

Chris Newman of U.S. EPA's Materials Management Branch calculated that the carbon dioxide equivalent of collecting the materials and recycling them is approximately equal to 57 metric tons of carbon dioxide. This is equivalent to removing approximately 10.4 passenger cars from the road for a year (5.46 metric tons of CO<sub>2</sub> being equivalent to one passenger car per year). (See Appendix D for more information.)



For more information about RecycleForce, visit <a href="www.recycleforce.org">www.recycleforce.org</a>.



## **SUPER CITY CLEAN & GREEN DAY**

The 2012 Indianapolis Super Bowl Host Committee partnered with IndyParks to celebrate IndyParks' 100<sup>th</sup> Anniversary. Other partners included Keep Indianapolis Beautiful, Indianapolis Downtown, Inc. and over 500 Indianapolis area residents from companies, non-profit organizations and other groups by refurbishing, maintaining, and beautifying 32 IndyParks properties across Marion County (symbolizing the 32 teams of the NFL) as a part of the Super City Clean & Green Day.





On October 22, 2011, these groups met to pick up litter, paint park benches and stages, remove invasive species, and do general park maintenance at 30 parks, with two additional parks being attended to the following week. Two further clean-up projects included the Babe Denny/Stadium Village, coordinated by Indianapolis Downtown, Inc, and the I-70 and West Street Entrance/Exit Ramp, coordinated by Keep Indianapolis Beautiful, Inc. The Super City Clean & Green Day is believed to have been one of the largest park service projects in Indianapolis history.

Companies, organizations, and groups that participated in the Super City Clean & Green Day included:

- 100 Black Men of America
- AAA Hoosier Motor Club
- August Mack Environmental
- Baker & Daniels LLP
- Barnes & Thornburg LLP
- Bingham McHale
- Bose McKinney & Evans LLP
- Christamore House
- Citizens Energy Group
- Cummins Inc.
- DEEM, LLC
- Dow AgroSciences
- Firestone Diversified Products, LLC
- Green Corps
- Green Piece Indy
- Guerin Catholic High School Freshman Football Team
- The Heritage Group

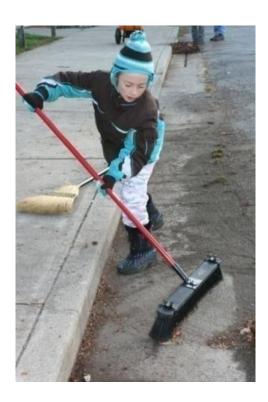
- Herff Jones
- Hillenbrand, Inc.
- Ice Miller
- Indianapolis Convention & Visitor Association
- Indiana University Health
- International School of Indiana
- IUPUI
- Langham Logistics
- Lucas Oil Products, Inc.
- Mays Chemical Company
- The National Bank of Indianapolis
- Pacers Academy High School at Washington Square
- Super Bowl Volunteers
- Well Point, Inc.
- WTHR-Channel 13



#### Parks and trails included:

- Broad Ripple Park
- Cancer Survivor's Park
- Centennial & Groff Park
- Chapel Hill Park
- Denver Park
- Douglass Park
- Dr. Martin Luther King Jr. Park
- Dubarry Park
- Fall Creek Trail
- Garfield Park
- Gateway West Park
- Grassy Creek Park
- Haughville Park
- Hawthorne Park
- Highland Park
- Indianola Park

- Kelly Park
- Krannert Park
- Lentz Park
- Monon Trail
- Municipal Gardens Park
- Olin Park
- Orange Park
- Pleasant Run Trail
- Pride Park
- Rev. Mozel Sanders Park
- Riverwood Park
- Sandorf Park
- Sexson Park
- Thatcher Park
- Washington Park
- Wes Montgomery Park







## **NFL SUPER KIDS-SUPER SHARING**

The NFL's Super Kids-Super Sharing program, now in its 13 year, encourages young people to donate their gently used and new sporting equipment, books, and school supplies to children in need.

After the 2011-2012 holiday break, participating schools in the Greater Indianapolis area began collecting gently used and new items to donate. On January 19, school representatives brought the collected materials to Martin University. Super Bowl volunteers assisted students and school representatives in sorting items into boxes by type of sport, reading level, and type of school supply.



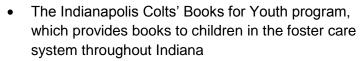
The donor schools were recognized with a stage ceremony including Martin University President Dr. Charlotte Westerhaus-Renfrow, Super Bowl Host Committee Chairman Mark Miles, NFL Super Kids-Super Sharing Program Coordinator Susan Groh, NFL Environmental Program Director Jack Groh, and Colts offensive tackle Jeff Linkenbach. Colts cheerleaders and mascot Blue were on hand to greet the students and congratulate them for their efforts.

Recipient schools and youth-serving organizations arrived that afternoon to "shop" the donated items.

A total of 32,987 items were donated, including:

- 19,276 books
- 3,557 pieces of sporting equipment
- 10,154 school supplies

Donor and recipient schools included more than 100 public, private and charter schools in the Greater Indianapolis area. Recipient organizations also included:



- Indiana Sports Corporation's Geared for Health program, which provides sports equipment to youthserving schools and organizations
- Martin University, which provides books for children of Martin University students
- Second Helpings, which received remaining cases of bottled water, snacks, and cardboard collection boxes







#### Participating School Districts in the Super Kids-Super Sharing Program included:

- Archdiocese Schools
- Avon Community Schools
- Beech Grove City Schools
- Brownsburg Community School Corporation
- Carmel Clay Schools
- Center Grove Community School Corporation
- Clark-Pleasant Community School Corporation
- Covenant Christian High School
- Franklin Township Community School Corporation
- Greenwood Community School Corporation
- Hamilton Southeastern Schools
- Imagine Indiana Life Science Academy West
- Indianapolis Public Schools
- Mooresville Community School Corporation
- MSD Decatur Township
- MSD Wayne Township
- Nineveh-Hensley-Jackson United School Group
- Park Tudor
- Providence Cristo Rey High School
- Westfield-Washington Schools
- Zionsville Community Schools





#### Support for the Super Kids-Super Sharing program was provided by:

- Goodwill Indy
- Indianapolis Colts
- Martin University
- Indianapolis Power & Light









## **VOLUNTEER PROGRAMS**

To engage the 8,000 Super Bowl volunteers in participating in green activities, the 2012 Indianapolis Super Bowl Host Committee invited them to join in three environmental programs specific to Super Bowl volunteers: the Green Team Pledge, the Zero Variance Clothing Drive, and a shoe donation drive.

The **Green Team Pledge** was modeled after similar pledges that have been a part of previous NCAA Final Four and Big Ten activities for event volunteers in Indianapolis. This pledge invited Super Bowl volunteers to select five environmental actions that they would take to make Indiana a greener place to live, such as recycling at home, reusing items, conserving energy, buying locally, conserving water, reducing carbon emissions from transportation, and other options. Volunteers who joined the Green Team received a 1st & Green lapel pin to wear with their volunteer uniforms. Over 7,000 volunteers joined the Green Team and helped to share the message of environmental sustainability.



For the **Zero Variance Clothing Drive**, Super Bowl volunteers were encouraged to bring an item of lightly worn clothing to donate to Goodwill Indy in exchange for their volunteer uniform. For each box of clothing collected, Goodwill donated a \$5 voucher for a Goodwill store to the Shepherd Community Center on the Near Eastside. A total of 181 boxes of clothing were donated by Super Bowl volunteers for the Zero Variance Clothing drive. A corresponding number of \$5 vouchers were donated to the Shepherd Community Center to purchase clothing and household items for those in need.

Super Bowl volunteers also participated in a **shoe donation drive** benefiting Samaritan's Feet, a non-profit organization that provides new shoes to those in need. Three hundred fifty seven pairs of new shoes were donated by Super Bowl volunteers to benefit children and adults who may otherwise go without. Samaritan's Feet distributed shoes at Arsenal Technical High School on January 28, 2012 to low-income Near Eastside residents.







### Super Bowl XLVI Green Team Pledge

#### Become a member of the Super Bowl XLVI Green Team!

You can help the Super Bowl Host Committee every day by pledging to do your part to make environmentally friendly decisions just in time for the big game! The first 5,000 volunteers to choose five environmental actions and join the Green Team will be eligible to receive a special 1st & Green pin for their uniform!

As a volunteer for the 2012 Super Bowl, I pledge the following for 1<sup>st</sup> &Green:

I will make Indiana a better place for myself and the future generations of Hoosiers. I will strive to make decisions that will protect our natural ecosystems while creating economic prosperity. To do so I will do the following environmental actions to keep Indiana beautiful:

Water Conservation

Recycle	Water Conservation			
<ul> <li>I will begin or increase the recycling I do at home and find creative ways to reuse products that would otherwise be thrown in the garbage.</li> </ul>	<ul> <li>I will change shower/hygiene behavior (take shorter showers, turn water off while shaving, turn off water while brushing teeth, install a low-flow</li> </ul>			
☐ I will recycle my unwanted electronics instead of disposing of them in a	shower head). *			
landfill.	☐ I will repair leaky faucets in my house as soon as I notice them.			
□ I will reduce my use of bottled water (install a water filter at home, carry my own BPA-free water bottle).	Emit Carbon Emissions			
<ul> <li>I will change a buying habit (obtain secondhand products from craigslist, Free Sharing, garage sales, consignment shops or trade with friends).</li> </ul>	<ul> <li>I will activate a new transportation behavior (walk to work on Fridays, have kids ride the bus to school, carpool to the grocery store with a</li> </ul>			
☐ I will bring my own water bottle to use while volunteering.	neighbor, etc.). *			
☐ I will compost kitchen scraps and/or yard waste.	□ I will ride the bus, walk, bike, or carpool to volunteer orientation and/or to my volunteer shifts.			
<ul> <li>I will start a sharing program with my neighbors for power tools and other appliances.</li> </ul>	<ul> <li>I will not idle my car for too long in the winter and will condense my household errands into one trip.</li> </ul>			
☐ I will use the library or used book store instead of buying new books.	<ul> <li>I will help others use proper recycling containers and assist as needed to ensure that waste is recycled.</li> </ul>			
Energy Conservation	☐ I will plant and care for a tree. ●			
<ul> <li>I will change my thermostat settings to conserve energy.</li> </ul>				
<ul> <li>I will install compact fluorescent light bulbs in my home.</li> </ul>	Other activities			
☐ I will take a measure to better insulate my home.	☐ I will donate used clothes to an organization.			
I will wash clothes in cold water, use a drying rack and/or wear clothes that don't need to be dry cleaned.	☐ I will reduce my mail and sign up for all electronic updates.			
I will use the lowest heat setting on my dryer to prevent using too much energy.	<ul> <li>I will work with a senior, neighbor, school or others to activate any of the above practices.</li> </ul>			
<ul> <li>I will unplug all unused appliances to protect my home from phantom energy use.</li> </ul>	☐ Other green practice.			
Buy Locally  ☐ I will change my dietary habits (e.g., add one meatless meal a week, buy locally raised, humane, and organic meat, eggs and dairy).				
I pledge to take at least five of these environmental actions and join the Super Bowl XVLI Green Team.				
Volunteer Signature	Date			
Be a fan on Facebook: www.facebook.com/1standGreen Follow us on Twitter: @1standGreen				



## RECYCLING AND WASTE REDUCTION PROGRAMS

The goal of Super Bowl XLVI recycling programs was to ensure that recycling was readily available and visible at all official Super Bowl locations, including Lucas Oil Stadium, the NFL Experience at the Indiana Convention Center, the Super Bowl Village, and additional sanctioned events. Through making recycling available, the amount of material sent to the landfill was greatly reduced.

## RECYCLING

#### **LUCAS OIL STADIUM**

Prior to the Super Bowl, the 2012 Indianapolis Super Bowl Host Committee participated in a U.S. EPA-funded grant program to increase recycling at Lucas Oil Stadium. This grant was procured by the Indianapolis Office of Sustainability. To better understand recycling behaviors at the stadium, volunteers from the Green Corps attended events and conducted surveys of attendees to determine if they were aware of recycling availability at the stadium, as well as conducting a waste audit to determine which recyclable items were being disposed of in garbage containers and what garbage was being disposed of in the recycling bins. As a result of this grant, additional signage was added in the stadium to improve recycling visibility. More than 1,000 buttons promoting recycling were purchased through this grant, which were worn during the Super Bowl by guest services personnel to encourage recycling in the stadium during the game.

Because the usual recycling containers in Lucas Oil Stadium are provided by Coca Cola, PepsiCo (a sponsor of Super Bowl XLVI) provided Pepsi-branded containers to be used during the Super Bowl. The existing containers were placed into storage until after the event, when the Pepsi-branded containers were retrieved by Pepsi to be used at other events.

More than 300 PepsiCo recycling bins were available on the public concourses of Lucas Oil Stadium, with 200 additional recycling containers in suites, offices, VIP areas, and back-of-house areas of the stadium.

A total of 17.78 tons of recycling was collected from Lucas Oil Stadium. This included:

- 6.34 tons of cardboard
- 5.22 tons of wooden skids
- 6.22 tons of comingled recycling (cans, plastic bottles, paper)





#### **SUPER BOWL VILLAGE**

To provide recycling and trash services for the Super Bowl Village, the 2012 Indianapolis Super Bowl Host Committee contracted with Republic Waste Services, Inc. (Republic). Republic placed one recycling container next to each temporary trash container on Georgia Street, for a total of 400 recycling containers. To increase the ease of recycling, a hole was drilled into the lid of each temporary recycling container. Additionally, a sticker was added to the lid with pictures of the types of recycling items accepted in the containers. Republic staff was present 24 hours a day during the 10 days that the Super Bowl Village was open, overseen by Republic Operations Supervisor Josh Tienken.



## RECYCLE HERE











The temporary containers (pictured, top right) supplemented the on-street permanent recycling containers (pictured, right) that were installed shortly before the Super Bowl as a part of Indianapolis' redevelopment of Georgia Street.



Additionally, PepsiCo provided five Dream Machine reverse vending machines (pictured, left) for the Super Bowl Village. These machines allowed users to take an empty plastic bottle or can and scan it. The machine would then point them to the correct disposal portal, and give them a coupon as a reward.





#### SUPER BOWL VILLAGE RESTAURANT RECYCLING PROGRAM

In addition to on-street recycling services provided by Republic, Super Bowl Recycling Team volunteers worked with Super Bowl Village-adjacent restaurants to provide recycling to businesses that do not recycle on a regular basis. Participating restaurants included:

- Harry & Izzy's
- Howl at the Moon
- Kilrov's Bar & Grill
- Mikado
- The Pub
- The Ram
- Subterra Lounge
- Tiki Bob's



These restaurants were provided with posters (pictured below) to let their clients know that they were participating in a Super Bowl recycling program.







Recycling Team volunteers also collected recyclables from The Huddle (the indoor Super Bowl Village), with indoor recycling containers provided by PepsiCo. Recycling Team volunteers utilized motorized gators and wheeled Republic recycling containers to transport recyclables from each participating restaurant to the Republic recycling compactor.

Participating restaurants were given blue recycling bags (provided by Petoskey Plastics) and invited to set out their full bags in designated areas as determined by each participant. Volunteers visited the restaurants multiple times each day to collect the materials. Gloves for Recycling Team volunteers were provided by the ALCOA Foundation through the Indiana Recycling Coalition.





Recycling in the Super Bowl Village was a rousing success: A total of **65.46 tons** of recyclables collected by Republic, exceeding the amount of trash collected from the Super Bowl Village by 12.5 tons!

#### **NFL EXPERIENCE**

Recycling containers were provided by PepsiCo for the 800,000 square foot NFL Experience fan festival, held at the Indiana Convention Center from January 27 - February 5, 2012. Containers were placed throughout the Convention Center, located next to trash containers for visitors' convenience.

A total of 5 tons of comingled recyclables were collected from the Indiana Convention Center during the time that the NFL Experience was in operation.





#### **SUPER BOWL HOST COMMITTEE EVENT RECYCLING**

The 2012 Indianapolis Super Bowl Host Committee received a grant, funded by the ALCOA Foundation, of 35 ClearStream recycling containers from the Indiana Recycling Coalition. These containers were used at several events held by the Super Bowl Host Committee and NFL including:

- Food Truck Showdown at the City Market
- Super Kids-Super Sharing and Volunteer Training at Martin University
- Volunteer Uniform Pick-Up at the Mayer Chapel
- Legacy Look 5K Walk/Run on the Near Eastside
- Media Party at the Indianapolis Speedway
- Host Committee Soiree at the Lucas Estate
- Volunteer Appreciation Party at the Indiana State Fairgrounds



#### **SUPER BOWL RECYCLING TOTALS**

A total of **144.03 tons of recyclable materials** were collected by Republic from Super Bowl-related venues between January 23 and February 9, 2012, including Lucas Oil Stadium, the NFL Experience/Indiana Convention Center, the Super Bowl Village, the ESPN facility, Banker's Life Fieldhouse, and NFL Compounds. This included:

- 25.01 tons of aluminum
- 15.31 tons of PET plastics
- 24.24 tons of glass
- 72.67 tons of cardboard
- 6.8 tons of other plastics

The U.S. EPA's Materials Management Branch calculated that the recyclables collected reduced greenhouse gas emissions by 500 tons. See Appendix E for additional information on these calculations.

An additional 19,000 pounds of recyclables, primarily cardboard and paper, were collected by RecycleForce from Volunteer Uniform Distribution at the Mayer Chapel and from the Super Bowl Host Committee office.



## PREPARED FOOD RECOVERY

During the Super Bowl, numerous catered events were held throughout the Greater Indianapolis area. To recover food from these events, the NFL and 2012 Indianapolis Super Bowl Host Committee partnered with the Indianapolis-based non-profit organization Second Helpings.

Second Helpings collects prepared foods and reprepares them into nutritious meals, which are then donated to shelters, daycares, and other organizations that feed hungry people in the Greater Indianapolis area. In the months leading up to the Super Bowl, Second Helpings doubled the size of their coolers and freezers, expanding the capacity of their kitchen from 3,000 meals a day to 6,000 meals a day. This expansion allowed them to comfortably accept the large number of food donations available during the Super Bowl period.



#### One month prior to the Super Bowl:

- Second Helpings staff reached out to potential venues of sanctioned and non-sanctioned Super Bowl events to introduce themselves, explain food donation procedures, and offer tours of their facility. A packet was provided to each venue, containing an explanation of the types of items that can be rescued and how to store them. Indiana's Good Samaritan Law, which allows food donors to be absolved of liability once the food leaves their hands, was also explained.
- The 2012 Indianapolis Super Bowl Host Committee also shared information with event planners about how to work with Second Helpings.

#### One to two weeks prior to the Super Bowl:

- Second Helpings identified recipient agencies that could accept prepared food during the weekends, such as shelters, halfway houses, and residential treatment houses. This allowed Second Helpings to distribute food immediately after receipt.
- Second Helpings scheduled staff and volunteers, using staff drivers to pick up donated food and volunteers at the kitchen sorted and re-prepared the food.
- Second Helpings ordered disposable pans with lids, gloves, and wrap for pallets.
- Second Helpings reconnected with venues, offering pans and tubs, discussing the pick-up schedule, road closures and restrictions. The venues were provided with the cell phone number of the food rescue director.





#### During the Super Bowl:

- Second Helpings e-mailed all venues with instructions of how to reach them.
- The outgoing phone message and e-mail address for Second Helpings was changed to include 24-hour contact information.
- Prepared and non-perishable foods and beverages were collected, resulting in donations of:



Venue/Caterer	Amount Collected (pounds)
Lucas Oil Stadium/Centerplate	4,400
NFL Tailgate	6,400
The Huddle/Levy Restaurants	5,900
The Huddle/NFL	500
The Hyatt	6,100
Barto's Catering	1,200
Victory Field/Aramark	2,500
7-Up/Dr. Pepper	2,000
Gunthrop Farms	1,200
Gleaners Food Bank/Taste of the NFL	4,000
Pepsi/Renaissance Marriott	750
Capitol Grill	500
Big Earl, Hoglin, MBP, and Ivy Tech	5,000
Anonymous Donors	2,000
Total Donations	46,000 pounds

These food donations provided approximately 23,000 meals to over 60 social services organizations, including daycares, shelters, halfway houses, residential treatment facilities, and others. This food was also used for Second Helpings' culinary job training program, which provides free 10-week culinary skills courses to unemployed and underemployed people to prepare them for careers in the food service field.

The success of the prepared food recovery program can be primarily attributed to the talented staff and volunteers of Second Helpings. For more information about Second Helpings, visit <a href="https://www.secondhelpings.org">www.secondhelpings.org</a>.



## **MATERIALS RECOVERY**

The NFL and 2012 Indianapolis Super Bowl Host Committee furthered the goals of reducing waste by collecting and distributing materials after the event. The largest components of these salvageable materials were decorative items such as mesh fence wrap, vinyl banners, and cloth decorations.

The NFL and Host Committee partnered with local non-profit organization People for Urban Progress (PUP) to reclaim and repurpose the approximately 5 miles of decorative materials. PUP was first formed as an organization to find new uses for the fabric dome of the demolished RCA Dome (the previous home of the Indianapolis Colts).

#### Examples of banners recovered:





PUP used these banners to create items such as wallets, shower curtains, tote bags and messenger bags (pictured below), which will be sold to fund PUP projects which advance public transit, environmental awareness, and urban design.











In addition to the repurposing of decorative materials, remaining items such as volunteer uniforms, office fixtures, promotional items, and miscellaneous items were made available to Super Bowl volunteers at the Volunteer Appreciation Party through a "fire sale," with all proceeds and donations going to benefit the John H. Boner Community Center to continue supporting the Chase Near Eastside Legacy Project.

Donations of additional items included the following: recovered turf to Corydon Central Junior High School to create a recycled-material mini-golf course, to W/Purpose design firm to be used in urban design projects, reusable shopping bags to Second Helpings and Gleaner's Food Bank, and banners and foamboard to My Sister's Place for their urban recycling program.

The recovered and repurposed material has been valued at around \$250,000. For more information about People for Urban Progress visit <a href="https://www.peopleup.org">www.peopleup.org</a>.

## **RENEWABLE ENERGY**

To reduce the environmental impact of Super Bowl XLVI, the NFL worked with Green Mountain Energy, a leader in wind and solar energy production. Green Mountain Energy is one of the nation's leading competitive providers of cleaner energy and carbon offset solutions. The company supports projects that reduce carbon dioxide emissions and renewable energy.



For the 2012 Indianapolis Super Bowl, Green Mountain Energy provided **15,000 megawatt** hours of renewable energy certificates (RECs) to offset greenhouse gas emissions associated with the electricity used at Lucas Oil Stadium, the Indiana Convention Center, and all four of the major NFL designated hotels including the NFL Headquarters, the Super Bowl Media Center, and the AFC and NFC team hotels over the month-long period leading up to and immediately following Super Bowl XLVI.

The RECs provided by Green Mountain Energy used to offset the greenhouse gases from Super Bowl venues were generated at wind farms located in North Dakota; saving more than 14,000 tons of greenhouse gas emissions normally associated with the Super Bowl and its festivals.

Additionally, Green Mountain Energy donated a residential solar array to a home on the Near Eastside of Indianapolis through Rebuilding Together. They also provided funding to Keep Indianapolis Beautiful to plant post-Super Bowl trees in urban areas of Indianapolis. For more information about Green Mountain Energy, visit <a href="https://www.greenmountainenergy.com">www.greenmountainenergy.com</a>.





## **COMPOSTING**

The JW Marriott Hotel, home of Super Bowl XLVI's Media Center, began a food waste composting pilot project for the 2012 Indianapolis Super Bowl. The goal of this program was for the JW Marriott Hotel to collect food waste from its main kitchen during the week of the Super Bowl for composting. This pilot project was part of a broader goal to jump-start food waste composting in downtown Indianapolis. This project was such a success that the JW Marriott is currently seeking to make food waste composting in its main kitchen a permanent program.



In downtown Indianapolis, prior to the Super Bowl, there were no major restaurants or hotels diverting food waste for

composting. The Indiana Recycling Coalition partnered with the JW Marriott, GreenCycle, the Indiana Department of Environmental Management, Republic Waste Services, and the 2012 Indianapolis Super Bowl Host Committee to develop this pilot program that would provide lessons learned to ultimately help establish this practice at a variety of venues in Indianapolis.



For one week in August 2011, the JW Marriott conducted a pilot project collecting food waste during the Resource Recycling Conference, a national recycling conference held at the JW Marriott. Food waste was collected from their main kitchen in biodegradable bags, provided by BioBags, which was transported by Republic Waste Services to GreenCycle, where it was mixed with wood chips and converted to compost. Two tons of food were collected during this pilot week. This week helped the JW Marriott prepare for the food they would collect during the peak hotel operational period of the Super Bowl.

During Super Bowl week, JW Marriott staff collected food waste in lidded plastic containers to be transported to GreenCycle, located 1 mile south of Indianapolis. Bags were donated by EcoSafe Zero Waste. The total amount of food collected was not recorded. The JW Marriott is now

actively working to establish a permanent composting program.

For more information about the JW Marriott, visit www.jwindy.com. For more information about GreenCycle, visit www.greencycle.net.





## **GREEN INFRASTRUCTURE**

Sustainability was a key feature of building projects associated with the 2012 Indianapolis Super Bowl. The city of Indianapolis incorporated sustainable building practices into the Georgia Street Improvement Project, which became the site of the Super Bowl Village. The Chase Near Eastside Legacy Center, the key component of Super Bowl XLVI's Legacy Project, included multiple Leadership in Energy and Environmental Design (LEED) features into its construction. Green building practices were incorporated into many other building projects on the Near Eastside. Additionally, the Better Buildings program provided energy efficiency grants to Near Eastside residents.

## **GEORGIA STREET IMPROVEMENT PROJECT**

The Georgia Street Improvement Project established a main city center for not only football fans, but all Hoosiers and visitors for years to come. The city of Indianapolis' Georgia Street Improvement Project converted three blocks of Georgia Street from Pennsylvania Street to Capitol Avenue to a two-lane curbless "green" street, providing a pedestrian promenade where fans could enjoy food, live entertainment, and shops. The concept of linking the convention center to the Banker's Life Fieldhouse was designed by Ratio Architects to include many sustainable features. This project was part of the Sustainable Sites Initiative (SITES) pilot program, an effort by the American Society of Landscape Architects seeking to transform and foster more sustainable site development projects, particularly in urban settings.

#### Sustainable measures included:

- Planting of native plant species in green spaces.
- Installation of energy efficient lighting.
- Construction incorporating recycled and locally sourced hardscape materials.
- Developing a pedestrian boardwalk made of sustainably harvested wood, which encourages walking and bicycling, including several bicycle racks.
- Creating a rainwater infiltration system that allows stormwater to percolate into the ground, reducing impact on city sewers.





While Super Bowl XLVI was the first event to use Georgia Street as an event space, it will not be the last, as Indianapolis Downtown, Inc. will manage a wide range of both day-to-day and special events in this redesigned area. For more information about Georgia Street, visit

www.indvdt.com/georgiastreet.cfm.



## **CHASE NEAR EASTSIDE LEGACY CENTER**

The 2012 Indianapolis Super Bowl Host Committee sought to involve building stronger neighborhoods as part of the NFL Super Bowl Legacy effort, a program that infuses revitalization and sustainability into a hosting city. The Host Committee's leadership found a valued partner on the city's Near Eastside. A coalition of neighborhood groups had come together in 2008 under the auspices of the Great Indy Neighborhoods Initiative (GINI) and the Local Initiatives Support Corporations (LISC) to create a comprehensive quality-of-life plan. Consisting of nearly 35,000 residents, the Near Eastside has been plagued by some of the highest rates of home foreclosure and abandonment in the country and throughout the state. As businesses have closed, crime rates have risen and school graduation rates and test scores have fallen dramatically.



The Legacy Project vision for a 44 square block area east of downtown was to use the energy, excitement and deadline of the 2012 Super Bowl to provide enduring contributions to the residents of the Near Eastside of Indianapolis by advancing their Quality of Life Plan.

Breaking ground on November 15, 2010 on the campus of Arsenal Technical High School, the 27,000 square foot Chase Near Eastside Legacy Center opened its doors on February 7, 2012 to Near Eastside residents and Arsenal Technical High School students. The Legacy Center now provides a menu of services for children, youth, families, seniors and neighborhood residents. The Center also serves as a major hub for comprehensive, holistic programming for all who live in this community, including a full-service fitness facility, state-of-the-art media studio, mobile computer lab, educational greenhouse and garden, instructional kitchen and art studio.

Sustainable elements were integrated into the construction plans, with the goal of the Chase Near Eastside Legacy Center achieving at least Silver LEED certification. The green roof was funded by United Water's Green Infrastructure Grant Program. For more information about the Chase Near Eastside Legacy Center visit <a href="http://jhbcc.org/chaseneareastsidelegacycenter/">http://jhbcc.org/chaseneareastsidelegacycenter/</a>.



#### Sustainability Benefits and Features

#### Stormwater

- (1) A green roof mitigates stormwater runoff from the building.
  (2) An underground cistern collects stormwater for irrigation and building functions.
  (3) Raingardens treat and filter stormwater before being released to underground aquifers and Pogues Run.

- Energy
  (4) A white roof reduces cooling loads in the summer.
  (5) All regularly occupied spaces receive daylighting to lower electricity consumption. (6) A geothermal system heats and cools the building with minimal use of fossil fuels and lower costs.

- Urban Farming, Nutrition and Excercise
  (7) Educational garden plots demonstrate the basics of gardening.
  (8) A greenhouse extends the growing season to provide fresh, local produce year round.
  (9) A living wall provides ingredients for the educational kitchen while filtering sunlight in the lounge.
- (10) Urban farming, nutrition and fitness classrooms teach the fundamentals of healthy living.

#### Other Sustainability Features

- -A locateion in an urban neighborhood that is easily accessible by foot, bicycle and public transit.
  -A Glazing system that provides diffuse light to the inside while providing an insulation factor comporable to a solid exterior wall.







## **LEGACY PROJECT CONSTRUCTION**

The Legacy Project also included construction of the St. Clair Senior Apartments, the rehabilitation of the Jefferson Apartments, and the renovation of the East 10th Street corridor. Sustainability efforts included:

- Installation of a green roof on the St. Clair Senior Apartments and on portions of the John H. Boner Community Center.
- Bioswales constructed along East 10th Street to filter rain water and reduce impact on the city's sewage system.
- Permeable pavement installed in alleys and parking lots to absorb and filter rain water.
- Reclaimed metals used in the facing of the Jefferson Apartments.
- Pogue's Run Grocer, the first community-owned grocery store on the Near Eastside, was opened, bringing fresh and healthy food options to Near Eastside residents, with the support of the Local Initiatives Support Corporation (LISC)'s Greater Indy Neighborhoods Initiatives (GINI).



For more information about the Near Eastside Legacy Initiative Projects, visit <a href="http://liscindianapolis.org">http://liscindianapolis.org</a>.

## **LEGACY RETROFIT RAMP UP**

The City of Indianapolis backed the commitment to community revitalization through other Legacy projects on the Near Eastside. The Legacy Retrofit Ramp Up Project, also known as the BetterBuildings Near Eastside Neighborhood Sweeps Program, reached out to residents of the Near Eastside with the goal of reducing energy consumption and lowering energy bills for residents and business owners. Ten million dollars in seed funding was provided by the U.S. Department of Energy's Better Building Neighborhood Program for this project. Working with the Near Eastside Community Organization (NESCO), Americorps Public Allies promoted the grant program, in which grants were made available to more than 1,000 residents, businesses, and non-profits. Free energy evaluations were made available to grant recipients to determine the most cost-effective way to increase building energy efficiency. Scheduled work included the installation of insulation or energy-efficient lighting; heating, venting and air conditioning (HVAC) units; installing Energy Star appliances; and conducting weather sealing. Grants of up to \$1,500 per residential home and \$2,000 for small businesses were available through this program.

For more information about this program, visit http://www.neareastsidesweeps.com/.



## **WRAP UP**

Super Bowl XLVI provided a unique opportunity to positively impact Indiana's environment through tree plantings, environmental education and outreach activities, and waste reduction programs. Local, national and international media shared Super Bowl-related messages of environmental sustainability with their viewers. A significant quantity of potential waste material generated at Super Bowl event venues was diverted to recycling facilities, donated through food rescue, donated, or repurposed. The legacy of Super Bowl environmental programs will continue for many years through the benefits of trees planted, the sustainable building components of Legacy Project construction, and through the environmental awareness continued by participants of Super Bowl environmental community programs. We hope that the information contained in this report will not only serve as a record of Super Bowl XLVI environmental programs, but that they will also serve as a resource for future sporting and other large events.



## **THANKS & ACKNOWLEDGEMENTS**

The 2012 Indianapolis Super Bowl Environmental Programs were a true team effort. They would not have been possible without the support of office holders, companies, non-profit organizations, state of Indiana, city of Indianapolis, volunteers and other supporters. Jack Groh, Environmental Programs Director for the National Football League (NFL), and Susan Groh, Super Kids-Super Sharing Program Coordinator for the NFL brought the environmental goals and programs of the NFL to Indianapolis.

2012 Indianapolis Super Bowl Host Committee staff integrated environmental goals at all planning stages. The Host Committee's Environmental Programs Committee members, led by co-chairs Carey Hamilton and Kären Haley, provided leadership in shaping the Host Committee's environmental goals and helping us reach them. The 2,012 Trees by 2012 program would not have been possible if not for the dedication of Keep Indianapolis Beautiful, Inc. and the John H. Boner Community Center. Local multimedia company INNOVATIVE built and maintained the 1st & Green web site and produced the "Easy Green Tips" video series, with calculations provided by August Mack Environmental.

The Green Corps program would not have been possible without the involvement of Green Corps coordinator Kevin Boyce. Significant guidance was provided by veterans of the Indianapolis Final Four environmental programs, including Jacob Hassan of the U.S. EPA, Connie Israel of the Host Committee, and Eric Breece and Andretta Erickson of the Indiana Sports Corporation. RecycleForce not only held three electronics recycling drives, but also made recycling possible at the Volunteer Headquarters. Republic Waste Services, Inc. did an outstanding job providing recycling and garbage services in the Super Bowl Village. Recycling Team Quarterbacks and Volunteers made it possible to provide recycling services to Super Bowl Village restaurants and volunteered each day with joy and enthusiasm. Super Kids-Super Sharing volunteers made the event run smoothly and were a pleasure to work with.

While it is not possible to mention all of those who made the Super Bowl's environmental programs a success, the following organizations, companies and individuals played important roles in accomplishing our environmental goals and we greatly appreciate their involvement:

August Mack Environmental

The ALCOA Foundation

Duke Energy Goodwill Indy

Governor Mitch Daniels Green Mountain Energy

Indiana Department of Environmental

Management

Indiana Power & Light
Indiana Recycling Coalition
Indiana Sports Corporation
The Indianapolis Colts
Indianapolis Downtown, Inc.

Indianapolis Office of Sustainability

The Indianapolis Zoo

Indy-east Asset Development (I-AD)

INNOVATIVE

John H. Boner Community Center Keep Indianapolis Beautiful, Inc. Local Initiatives Support Corporation (LISC)

Lucas Oil Stadium

Marion County Commission on Youth (MCCOY)

Mayor Greg Ballard

National Energy Foundation National Football League (NFL)

Near Eastside Community Organization

(NESCO)

Petoskey Plastics Ratio Architects RecycleForce

Recycling Team volunteers Republic Waste Services, Inc.

Second Helpings

U.S. Department of Energy

U.S. Environmental Protection Agency

**United Water** 

Waste Management



## **2012 Indianapolis Super Bowl Host Committee**

## **STAFF:**

Mark Miles, 2012 Indianapolis Super Bowl Host Committee Chairman

Allison Melangton, President & CEO

Tony Mason, Senior Vice President

Susan Baughman, Senior Vice President, Hospitality Services & Events

**Brad Carlson**, Vice President of Marketing

Connie Israel, Vice President - Special Events & Volunteer Services

Mel Raines, Vice President of Event Operations & Government Relations

Susie Townsend, Vice President of Guest Welcome & Super Service

Ali Smith, Special Projects - Guest Welcome

Andy Arnold, Director of Event Operations

Brad Bowman, Chief Financial Officer

Casey Springer, Coordinator, Guest Welcome & Super Service

Chris Panyard, Special Projects - Super Bowl Village

Claire Rinehart, Special Projects - Event Operations

Dianna Boyce, Director of Communications

**Ebony Strong**, Coordinator of Administration

Grace Maze, Special Projects - Community Programs

James Taylor, Chief Executive Officer, John H. Boner Community Center Super Bowl Legacy Staff

Jeremiah Shirk, Manager of Transportation & Logistics

Joe Bowling, Community Builder, John H. Boner Community Center Super Bowl Legacy Staff

Kathleen Foerster, Special Projects - Indy's Super Cure

**Lisa Talley**, Executive Assistant to President

Lori Dunlap, Special Projects

Marshawn Wolley, Director of Emerging Business & Community Outreach

McKenze Rogers, Marketing & Communications Coordinator

Missy Berg, Manager of Special Events

Molly Griffin. Director of Finance

Shawn Hitchcock, Director of Special Projects

Sheila Bradley, Director of Volunteer Services

Stephanie Gadient, Manager of Community Connection & Special Events

Sue Prewitt, Administrative Assistant

Summer Keown, Manager of Environmental Programs

Tina Burks, Coordinator of Donor Services

Tori Thornton, Special Projects - Prints

Tracy Heaton, Executive Associate, John H. Boner Community Center Super Bowl Legacy Staff



# 2012 Indianapolis Super Bowl Host Committee Interns (2011-2012):

Aaron Weaver

Alex Pilnik

Alicia Dalrymple

Amanda Lane

Andrew King

Andrew Tuke

Brent Lyle

**Brittany Davenport** 

Carrah Haley

Cassie Screeton

Catherine Schmidt

Christina Bleeke

Courtney Anderson

**Drew Beckerman** 

Emma Bennett

**Garrett Rosh** 

Janelle Gearries

Jenna Morr

Jenny Anderson

Jennifer Blanchard

Joan Sojka

Junita Galvis

Katelyn Hendrickson

Kaitlin O'Brien

Kayla Wininger

Kelly Hagar

Itoliy Haga

Kelly Rowd

Konor Shoup

Megan Mattingly

Michelle Matthrews

Natalie Bush

Patrick O'Brien

Punita Sahu

Rachelle Huff

Robert Anderson

Sarah Maggard

Traci Pettigrew

Travis Taggart

Victoria Beaty

William Alexander

## **DePauw Student Interns:**

Megan Crowley

Sam Miles

Jack Miles

Casey Yott

Andrew Khan

Ben Kopensky

Noah Swiler

Katie Purucker

Steven Pjevach

Reid Garlock

Austin Miller

Michael Rardon

INDIANAPOLIS 2012



# **ENVIRONMENTAL PROGRAMS COMMITTEE:**

#### Co-Chairs:

Kären Haley, Indianapolis Cultural Trail, Inc.

Carey Hamilton, Indiana Recycling Coalition

#### **Committee Members:**

Rick Alvis, Wheeler Mission

Lou Ann Baker

Bob Barr, IUPUI Center for Earth and

Environmental Science

Mark Becher, Simon Property Group

Kristen Belcredi, Keramida

Joe Bentley, Indiana Power & Light

Briana Bill, U.S. Environmental Protection

Agency Region V

Mindy Boehr, Barnes & Thornburg

Kevin Boyce, Waste Management

Todd Bradford, Taft Law

Dwayne Burke, AES

Tim Carter, Butler Center for Urban

Ecology

Kyle Cline, IUPUI Lugar Center for

Renewable Energy

Matthew Coe, City Securities Corporation

Jean Farison-Renk, Schmidt Associates

Michelle Fink, August Mack Environmental

Norah Fletchall, The Indianapolis Zoo

Alex Forman, Ice Miller LLP

Carrie Fulbright, Gleaners Food Bank

Michael Goldenberg, Duke Energy

Heather Grisham, The Indianapolis Zoo

Nicole Halper, INNOVATIVE

Andrew Hart, Keep Indianapolis Beautiful,

Inc.

Monica Hartke-Tarr, Indiana Department of

**Environmental Management** 

Jacob Hassan, U.S. Environmental

Protection Agency Region V

Laura Henderson, Growing Places Indy

Kyle Hupfer, Proliance Energy

Matt Hupp, Simon Property Group

Krista Jackson, Citizens Energy Group

Ashlee Kilpatrick, Indianapolis Office of

Sustainability

Kent Kramer, Goodwill Industries

Luke Leising, Guidon Design, Inc.

Glenn Livers, Indiana Power & Light

Heidi Mallin. Lucas Oil Stadium

Tim Maniscalo, Dow AgroSciences

Harmony Mappes, Baker & Daniels

Ann McIver, Citizens Energy Group

Jon Miller, Proliance Energy

Sarah Mincey, Indiana University

Carol Mullins, Indianapolis Downtown, Inc.

Megan Murray, Indiana Office of Energy

Development

Ed Peszek, URS Corporation

Brian Petriko, August Mack Environmental

Doug Petitt, Vectren

William Potter, C Creations

Teresa Rhodes, Keep Indianapolis

Beautiful. Inc.

Andy Sahm, Shiel Sexton

Greg Sawyers, Citizens Energy Group

Robbie Sears, Vectren

Brandon Seitz, Indiana Office of Energy

Development

Julie Schilf, U.S. Environmental Protection

Agency Region V

Curt Singh, INNOVATIVE

Angela Smith-Jones, Indianapolis

Chamber of Commerce

Sara Snow

Nora Spitznogle, Second Helpings

Greg Spratt, Eli Lilly

Renee Sweany, Green Piece Indy

Lisa Travis, Indianapolis Chamber of

Commerce

Megan Treida, Marion County Health

Department

Kristina Tridico, Ice Miller

Kevin Whited, IndyCog

Sam Yadav, Quest Environmental & Safety

Products



# **APPENDIX A**

# **2012 TREES BY 2012**

Date	Neighborhood	# Trees	Sub Total	Tree Type
	Not reported	9	9	Acer saccharum: "Fall Fiesta" ~ Fall Fiesta Maple
		26		Amelanchier x grandiflora: "Autumn Brilliance" ~ Serviceberry
		1		Cladrastuc kentukea: ~ Yellowwood
		2		Cornus alternifolia: ~ Alternateleaf dogwood
		2		Euonymus atropurpureus: "atropurpureus" ~ Eastern wahoo
3/28/2009	Springdale neighborhood, various	4		Gleditsia triacanthos: inermis "Imperial" ~ Thornless Common
3,23,233	locations	1		Liquidambar styraciflua: "Slender Silhoutte" ~ Slender Silhoutte Sweet Gum
		3		Liriodendron tulipifera: ~ Tuliptree
		1		Nyssa Sylvatica: ~ Blackgum
		1		Platanus occidentalis: ~ American sycamore
		2	43	Quercus muehlenbergii: ~ Chinkapin oak
		1		Acer Freemanii (rubrum x saccharinum): "Autumn blaze" ~ Freeman Maple
		8		Amelanchier x grandiflora: "Autumn Brilliance" ~ Serviceberry
		1		Carpinus caroliniana: ~ American hornbeam
4/4/2009	Woodruff Place, East Drive	1		Cercis canadensis: "Forest Pansy" Eastern redbud
		2		Chionanthus virginicus: ~ White Fringetree
		1		Cladrastus kentukea: ~Yellowood
		1		Gymnocladus dioica: "Espresso" ~ Kentucky Coffeetree
		2		Halesia tetraptera: ~ Carolina



Date	Neighborhood	# Trees	Sub Total	Tree Type
		1		Hamamelis virginiana: ~ Common Witchhazel
		1		Nyssa sylvatica: ~Blackgum
		2		Oxydendrum arboreum: ~ Sourwood
		1		Physocarpus opulifolius: "Diablo" ~Common Ninebark
4/4/2009	Woodruff Place, East Drive	1		Quercus imbricaria: ~ Shingle Oak
				Quercus lyrata: ~ Overcup Oak
				Quercus muehlenbergii: ~Chinkapin oak
		1	24	Viburnum prunifolium: ~ Blackhaw Viburnum
4/13/2009	Holy Cross, Sturm	1		Platanus x acerifolia: ~ London Planetree
4/13/2009	Project	3	4	Quercus muehlenbergii: ~ Chinkapin Oak
4/17/2009		102	102	
	Jefferson St.	71	71	various
	Angie's List	15	15	various
9/9/2009	KIB Adopt A Block trees - East Washington Street	17	17	various
9/26/2009	Eastern Avenue	19	19	various
9/20/2009	Eastern Avenue	31	31	various
10/10/2009	Woodruff Place, West Drive	10	10	various
10/10/2009	Davidson Street - East Washington Street Gateway	2	2	Oak Trees
10/11/2009	Centenary Christian Church			
11/7/2009	FFA, Tree Planting in Brookside Park	100	100	various
		2		Amelanchier x grandiflora 'Autumn Brilliance' Serviceberry
11/7/2000	DMS10 Noighborhood	1		Carpinus caroliniana American hornbeam
11/7/2009	RMS10 Neighborhood	1		Cercis- canadensis- Eastern Redbud
		1		Gymnocladus- dioicus- Kentucky coffeetree
		6	11	Quercus· imbricaria· · Shingle Oak



Date	Neighborhood	# Trees	Sub Total	Tree Type	
3/20/2010	Indy Parks, along Rural Street, Spades & 11 11 Red Sunset Maples Brookside Parks				
		2		Acer saccarum: "Legacy" Sugar Maple	
		2		Amelanchier x grandiflora: "Autumn Brilliance" Serviceberry	
		2		Cladrastus kentukea: Yellowwood	
		1		Halesia tetraptera: Carolina	
		1		Liquidambar styraciflua: "Slender Silhoutte" Slender Shilhoutte Sweet Gum	
		2		Liquidambar styraciflua: "Slender Silhoutte" Slender Shilhoutte Sweet Gum	
	Arsenal Heights	1		Physocarpus opulifolius: "Center Glow" Common Ninebark	
4/10/2010		3		Physocarpus opulifolius: "Diablo" Common Ninebark	
		7		Physocarpus opulifolius: "Diablo" Common Ninebark	
		1		Prunus virginia: "Canada Red" Chokeberry	
		8		Prunus virginia: "Canada Red" Chokeberry	
		3		Quercus macrocarpa: Bur Oak	
		1		Quercus rubra: Northern red oak	
		5		Quercus rubra: Northern red oak	
		5		Ulmas americana: "Princeton" American elm, Princeton	
		4		Ulmas americana: "Princeton" American elm, Princeton	
		1	49	Viburnum lentago: Nannyberry	
		3		Acer nigrum: "Greencolumn" Black Maple	
	Spades Park/Pogues	1		Acer saccarum: "Fall Fiesta" Fall Fiesta Maple	
4/24/2010	Run Conservation	2		Asimina triloba: PawPaw	
	Corridor	7		Betula lenta: Sweet Birch	
		5		Betula nigra: River Birch	
		3		Carpinus caroliniana: American hornbeam	



Date	Neighborhood	# Trees	Sub Total	Tree Type
		3		Carya Illinoensis x ovata: Burlington - Burlington Hican
		3		Carya illinoinensis: "Colby" Northern Pecan
		1		Carya Illinoensis: Peruque - Northern Pecan
		2		Carya lacinosa: "Chetopa" Chetopa Shelbark Hickory
		6		Carya Lacinosa: "Selbers" Selbers Shelbark Hickory (8'-9')
		1		Carya Lacinosa: "Selbers" Selbers Shelbark Hickory (7'-8')
		1		Carya Lacinosa: "Simpson" Simpson Shelbark Hickory
		7		Carya tomentosa: Mockernut
		3		Catalpa speciosa: Northern Catalpa
		5		Catalpa speciosa: Northern Catalpa
		4		Celtis speciosa: Common hackberry
		3		Cornus alternifolia: Alternateleaf dogwood
		5		Crateagus crusgalli: Crockspur hawthorn
		2		Diospyros virginiana: Common persimmon
		6		Euonymus atropurpureus: "Atropurpureau" Eastern wahoo
		2		Fagus grandifolia: American beech
		2		Fagus grandifolia: American beech
		10		Gymnocladus dioicus: Kentucky coffeetree
		2		Juglans nigra: Black Walnut
		1		Juglans nigra: "Thomas Myers" Thomas Myers Black Walnut (7'-8')
		1		Juglans nigra: "Thomas Myers" Thomas Myers Black Walnut (6'-7')
		1		Juglans nigra: "Neel 1" Schrieber Black Walnut
		1		Liquidambar styraciflua: "Burgundy" Sweetgum
		2		Magnolia macrophylla: Bigleaf Magnolia
		1		Magnolia tripetala: Umbrella Magnolia



Date	Neighborhood	# Trees	Sub Total	Tree Type
		7		Nyssa sylvatica: Blackgum
		11		Ostrya virginiana: Hophornbeam
		1		Platanus orientalis x occidentalis: "Bloodgood" London Planetre
		6		Quercus muehlenbergii: Chinkapin oak
		3		Taxodium distichum: Bald cypress
		3	127	Tilia americana: American
		1		Aesculus octandra or a flava: Yellow Buckeye
5/1/2010	Arsenal Heights	1		Cercis canadensis
		1		Physocarpus opulifoius
		1	4	Quercus alba: White Oak
5/8/2010	Arsenal Tech campus	2	2	Nyssa sylvatica: Blackgum
		1		Aesculus x arnoldiana a flava x a pavia: "Autumn Splendor" Yellow
		25		Amelanchier x grandiflora: "Autumn Brilliance" Serviceberry
		1		Betula lenta: Sweet Birch
		7		Betula nigra: River Birch
		2		Betula nigra: River Birch (8')
		3		Carpinus carolianiana: American hornbeam ( 4' & 6')
		1		Carpinus carolianiana: American hornbeam (shrubby)
		3		Carpinus carolianiana: American hornbeam (pallisade columnar)
5/15/2010	Spades & Brookside	5		Carya tomentosa - Mockernut
	•	8		Catalpa speciosa: Northern Catalpa
		23		Cercis canadensis: Eastern Redbud
		27		Cercis canadensis: "canadensis" Eastern Redbud
		1		Cladrastus kentukea: Yellowwood
		25		Cornus florida: "Cherokee Princess" Flowering Dogwood
		4		Diospyros virginiana: Common persimmon
		3		Fagus grandifolia: American beech
		8		Gymnocladus diocicus: Kentucky coffeetree
		1		Gymnocladus diocicus: Kentucky coffeetree



Date	Neighborhood	# Trees	Sub Total	Tree Type
		1		Juglans nigra: Black Walnut
		5		Liquidambar styraciflua: "Burgundy" Sweetgum
		2		Nyssa sylvatica: Blackgum
		6		Nyssa sylvatica: "wildfire" Blackgum
		7		Ostrya virginiana: Hophombeam
		27		Platanus oreintalis x occidentalis: "Bloodgood" London Planetree
		1		Populus grandidentata: Bigtooth Aspen
		7		Prunus americana: American Plum
		2		Prunus serotina: Black Cherry
		3		Quercus alba: White Oak
		1		Quercus alba: White Oak
		6		Quercus bicolor: Swamp white oak
5/15/2010	Spades & Brookside	3		Quercus bicolor: Swamp white oak
				Quercus imbricria: Shingle Oak
		3		Quercus imbricria: Shingle Oak
		2		Quercus imbricria: Shingle Oak
		1		Quercus macrocarpa: Bur Oak
		2		Quercus macrocarpa: Bur Oak
		2		Quercus muehlenbergii: Chinkapin oak
		2		Tilia americana: American
		5		Tilia americana: "Redmond" Redmond American Linden
		7	244	Ulmus americana: "Valley Forge" American elm
5/23/2010	Englewood Christian Church	2	2	Serviceberry
10/9/2010	Carol Franz	2	2	Not reported
10/20/2010	School #14	20	20	Kentucky coffeetree, London Planetree, Yellowwood, Bur oak
11/5/2010	Katz, Sapper Miller Community Day	192	192	Blackgum,Yellowood
11/13/2010	Little Flower/Emerson Heights	67	67	Bur oak
11/20/2010	Woodruff Place	26	26	Eastern Red Cedar
4/2/2011	Englewood	3	3	Pear Trees
4/18/2011	City of Indianapolis/East 10th Street Infrastructure Improvements	32	32	17 Princeton Sentry Ginkgo and 15 Bald Cypress.



Date	Neighborhood	# Trees	Sub Total	Tree Type
4/30/2011	Wellpoint tree planting, Spades Park	101	101	Eastern Red Cedar, American beech, Red Sunset Maple, Serviceberry, Eastern Redbud, Shingle Oak, Nannyberry
5/5/2011	Roche tree planting, Spades & Brookside	200	200	sycamores and others
5/9/2011	Fedex Tree Planting, Spades Park	50	50	sycamores, oaks & black gums
5/18/2011	Dow, East Washington Street	30	30	Sentry Americian Linden, Ginko, Slender Silhouette Sweet Gum
9/6/2011	David Feinberg, 1503 Linwood	1	1	Not reported
9/13/2011	David Feinberg, 1225 North DeQuincy	1	1	Not reported
9/19/2011	David Feinberg, 1444 North Euclid	1	1	Not reported
9/22/2011	Crowe Horwath, Temple & New York	96	96	various oaks
9/24/2011	Shrewsberry, East Washington St, north side	21	21	various oaks
	Lilly Day of Service			
	I-70 & Emerson	350		
	Pogue's Run Art & Nature Park	400		Staghorn Sumac, Smooth Sumac, Bur oak, Quaking Aspen, American
10/6/2011	Western Gateway on East 10th St	51		Sycamore, Kentucky coffeetree, common persimmon, northern pin oak,
	St. Clair Place	82		Northern red oak, American elm, Pecan, Blackjack oak, Eastern
	10 tulips			Cottonwood, Overcup Oak, Hackberry,
	47 service berry			Sweetgum
	24 ginko			
	1 bald cypress		883	
10/11/2011	August Mack, Little Flower Catholic School	3	3	Not reported
10/28/2011	Paramount School of Excellence	18	18	Sugar Maple, White Oak
11/1/2011	Legacy Center	16	16	sweet gum
11/3/2011	United Water, in the TEAR neighborhood	92	92	Sugar maple
11/5/2011	The Oaks Academy, at former school #81	12	12	Perkins Pink Yellowwood



Date	Neighborhood	# Trees	Sub Total	Tree Type
11/12/2011	Little Flower/Emerson Heights	57	57	Northern red oak
11/14/2011	ECDC, at the Commonwealth Apartments	30	30	Not reported
11/21/2011	St. Clair Senior Apartments	13	13	Not reported
12/3/2011	East 10th Street	12	12	Not reported
5/10/12	Arsenal Technical High School Campus	12	12	Not reported.
	TOTAL			2888



# **APPENDIX B**

# **2012 Trees by 2012 - CO2 SEQUESTRATION BY TREES OVER 5** AND **40** YEARS

Briana Bill of the U.S. EPA - Materials Management Branch calculated the CO2 that will be sequestered by the trees planted through the 2012 Trees by 2012 program. The following traces the steps followed to calculate the tons of CO2 that will be sequestered by these trees within 5 year and 40 year time spans.

Net CO2 Sequestered (40 year average) in tons, from trees of three different sizes:

Small trees: 1206.66Medium: 894.00Large: 9394.88

• Total: 11,495.54 tons

Net CO2 in tons in the 5th year after planting:

Small: 8.29Medium: 4.02Large: 72.22Total: 84.83 tons

#### Method

Briana Bill conferred with Paula J. Peper, Ecologist with the USDA Forest Service and part of the Climate Change Resource Center team developing the Tree Carbon Calculator model soon to be released. Ms. Peper referred Ms. Bill to the Lower Midwest Community Tree Guide (Peper et al. 2009). Chapter 4 in this manual provides a step-by-step process for estimating all environmental benefits from community tree planting projects, including storm water, energy, carbon and air quality improvements. To allow comparison with other Super Bowl environmental projects (e.g., waste diversion), she calculated only those benefits associated with CO2 reductions. Jerome Delbridge, forester with Keep Indianapolis Beautiful Inc., provided the original spreadsheet with the tree species.



**STEP 1:** For each tree planted (genus and species), an identifier was assigned classifying the tree height at maturity as small (0 - 30 ft), medium (30 - 50 ft) or large (greater than 50 ft). For trees in Indiana, the City of Indianapolis Species Code spreadsheet (adapted from Purcell, Lindsey; Parks and Recreation Department 2008 Tree Inventory, City of Indianapolis, Indiana) served as a good resource for this information. For trees and shrubs not listed, numerous web sites exist that provide the height of various tree types. Two sources consulted include:

- http://selectree.calpoly.edu/name\_search.lasso
- <a href="http://lyra.ifas.ufl.edu/TREESServlet?command=getNorthernScientificNameMenu&prefix=A">http://lyra.ifas.ufl.edu/TREESServlet?command=getNorthernScientificNameMenu&prefix=A</a>

**STEP 2:** Tables 6, 9 and 12 (beginning on page 92) of the USDA Lower Midwest Community Tree Guide were used as the source of a multiplier to calculate the carbon dioxide sequestered from three different sized trees for two different time periods. For the purposes of the calculation, the trees were assumed to be in a public area.

#### At Year 5 (Short-Term Effects)

- (Total # trees planted in each size class) X (multiplier for public trees in that class, year 5) = Net Carbon Dioxide (lbs).
- Divide by 2000 for Net Carbon Dioxide in Tons
- Small trees: 663 x 25 = 16,575 lbs or 8.29 tons CO2
- Medium trees: 298 x 27 = 8046 lbs or 4.02 tons CO2
- Large trees: 1256 x 115 = 144,440 lbs or 72.22 tons CO2

#### Over a 40 Year Average (Long-Term Effects)

- (Total # trees planted in each size class) X (multiplier for public trees in that class, 40-year average) X 40 years= Net CO2 (lbs).
- Divide by 2000 for Net Carbon Dioxide in Tons
- Small trees: 663 x 91 x 40 = 2,413,320 lbs or 1206.66 tons CO2
- Medium trees: 298 x 150 x 40 = 1,788,000 lbs or 894 tons CO2
- Large trees: 1256 x 374 x 40 = 18,789,760 lbs or 9394.88 tons CO2

The USDA Lower Midwest Community Tree Guide can be found at: http://www.fs.fed.us/psw/programs/uesd/uep/products/2/psw\_cufr789\_psw\_gtr219.pdf

**STEP 3**: CO2 amounts for the three different size trees were added to come up with a total CO2 sequestration for each of the two time periods.

#### Short-term Effects

8.29 + 4.02 + 72.22 = 84.53 tons CO2 sequestered in year 5.

#### Long-term Effects

1206.66 + 894 + 9394.88 = 11,495.54 tons CO2 sequestered over a 40 year period after tree planting.



### **Assumptions:**

A number of assumptions are inherent in the values used to determine the net carbon dioxide sequestered. The values assume 10% of trees planted die during the first 5 years and 40% during the remaining 35 years, for a total mortality of 50% during a 40 year period. The values also assume all trees -- small (0 - 30 ft), medium (30 - 50 ft), large (greater than 50 ft) sequester CO2 similarly to a representative tree for each size range, i.e., small tree (eastern redbud), medium tree (littleleaf linden) and large tree (northern hackberry) respectively. Finally, it is assumed the trees were planted in public space (streets and parks) and that average growth rates remain the same as they were when the Indianapolis trees used to determine the value were measured in 2008. These assumptions are referenced in the USDA Lower Midwest Community Tree Guide, which was the source of the values.

Calculations were only completed for 2,218 trees, as these were the trees with known species and size. A total of 2,876 trees were planted through the 2012 Trees by 2012 program.



# **APPENDIX C**

# **GREEN CORPS PROJECTS 2010-2011**

The Green Corps is a program of the 2012 Indianapolis Super Bowl Host Committee. Between April 2010 and December 2011, Green Corps members organized and carried out environmental projects throughout the state of Indiana. Projects could include any activity that positively impacted the environment in Indiana, with the ideas generated by the Green Corps members based on the needs they saw in their individual communities.

## Mary Bryan Elementary School Environmental Education Day

A group of Green Corps member, led by team leaders Ali DeHart and Alison Ismail, planned a series of environmental activities with the fourth grade class of Mary Bryan Elementary School in Indianapolis, Indiana on September 9, 2011. Participating Green Corps members included:

- Elizabeth Alexander Carmel High School
- Micah Brown Hoosier Academies High School
- Gigi Cabello Ben Davis High School
- Ali DeHart Southport High School
- Faith French-Trauner Cascade High School
- Alison Ismail Zionsville Community High School
- Vanessa Richmond-Jones Key Learning Community
- Matt Sampson Monrovia High School
- Brittany Tatlock Mt. Vernon High School
- Jordan Speedy Mooresville High School



Students visited four stations, each with an environmental activity and lesson. These stations included:

- Recycling Relay Race
  - The Recycling Relay Race was a sorting activity. Trash and recyclable items were mixed together and students performed a relay race dividing the materials into recyclables and garbage.
- Trash Pizza
  - Students participated in a "garbage pizza" activity (developed by Keep America Beautiful) in which the composition of the waste stream was divided into a pie chart "pizza." Students identified the items within each waste category and placed them on



the pizza. They then identified which of these materials can be recycled to reduce waste.

#### Recycled Robot

Students created homemade recycled "robots" out of reclaimed materials, including cardboard boxes and other materials gathered from the school. Each subsequent group that visited this station continued work on the robots and the finished robots were painted silver and placed outside of the classrooms.

#### Seed planting

 Students planted bush beans in milk cartons. They were then each given one carton to take home and plant. Bush beans were selected because they grow quickly.

The day culminated in an environmentally-themed spirit convocation for the entire school, led by the Green Corps. Students who had participated in the environmental activities shared about what they learned, and teachers connected the environmental lessons to Mary Bryan Elementary School's theme for the year - 212 degrees. At 211 degrees water is merely hot, but at 212 degrees water begins to boil. The motivation behind the theme is that small differences lead to bigger, positive changes. Green Corps members connected the environmental activities to this theme by showing how the students could positively impact the environment by each taking small actions that add up all together. Students were encouraged to wear Colts attire and two Colts cheerleaders attended the convocation to lead the students in cheers to connect the day's activities to Super Bowl programs.

The Green Corps members also arranged for three trees to be planted on the Mary Bryan Elementary School campus. These trees (a quaking aspen, a European horn bean, and a 3-flower maple) were donated by Keep Indianapolis Beautiful, Inc. The school also received a plaque commemorating the Green Corps environmental education day.





# "Easy Green Tips" Videos







Green Corps members hosted a series of "Easy Green Tips" videos, directed, produced and edited by Innovative. This video series included tips on easy ways to positively impact the environment. These videos were posted weekly on the 1st & Green web site to promote environmental sustainability.

"Easy Green Tips" videos included topics such as:

- Fixing home air leaks to reduce energy usage
- Air drying dishes and clothing
- Using reusable bags
- Shopping locally
- Turning off computers to save energy
- Saving water by not disposing of food in the garbage disposal
- Fixing dripping faucets
- Unplugging electrical devices to save energy
- Checking air pressure in tires
- Reducing water heater temperature
- Using natural cleaning products

#### Videos were hosted by:

- Sierra Browning Noblesville High School
- Gigi Cabello Ben Davis High School
- Vincent Holloway North Central High School
- Slaney Neisen Fishers High School
- Nathan Smith Wawasee High School
- Brianna Stutts- Lawrence Central High School
- Luke Tormoehlen Seymour High School



## **Tree Planting Projects**

Green Corps members organized and participated in several tree plantings throughout Indiana.

#### **Evansville:**

Green Corps members participated in two Evanville tree plantings on December 1, 2011. The first tree planting was held at the Korean War Memorial. Cherry trees were planted to replace elm trees which were removed due to the emerald ash borer. Evansville Mayor Jonathan Weinzapfel, Korean War Veterans and representatives of the Weed & Seed Garden Club, Evansville Department of Urban Forestry, Evansville Tree Advisory Board, and Evansville Department of Parks and Recreation attended the tree planting ceremony. Twenty-three trees were planted along the riverfront, including ten Canada Red Select Cherry trees donated by the Green Corps, seven Bald Cypress trees provided by the City of Evansville, and six Canada Red Select Cherry Trees provided by the Weed & Seed Garden Club.

Later that day, Green Corps members planted eight trees, as well as native grasses, at the Mesker Park Zoo and Botanic Gardens. These plants will help control erosion and purify stormwater within the zoo.

Green Corps members participating in these tree plantings included:

- Ryan Dick, Mt. Vernon Senior High School
- Katelyn Hurt, Harrison High School
- J.D. Volz, Boonville High School









#### Fort Wayne:

On November 16, 2011, Green Corps members in the Fort Wayne area planted five trees at the Bunche Montessori School with local tree planting organization Trees Indiana.

Green Corps members participating in the Fort Wayne tree planting included:

- Haley Crawford Fremont High School
- Jeff Pikel Carroll High School
- Tyler Purvis New Haven High School
- Marisa Steinbach Southside High School
- Audrey Stuckey Angola High School







#### Goshen:

Maya King-Meade of Goshen High School organized a tree planting with twenty students from

her high school. They planted ten trees near the Goshen Public Library. Maya raffled off a free green iPod to participants of the planting. (Maya is pictured center in the photo).





#### **South Bend:**

Joe Krsek of Culver Community High School participated in a tree planting at the 9/11 Memorial at St. Patricks County Park in South Bend, Indiana on November 15, 2011 (pictured below with his father). Firefighters from Clay Territory and volunteers from St. Joseph County parks assisted in planting eight trees. These trees included four Eastern Red Buds, two Red Maples, and two Sugar Maples.





#### **Indianapolis:**

Joshua Netherton of Pendleton Heights High School participated in a tree planting with Keep Indianapolis Beautiful.





## Lugar Energy Summit at the Indianapolis Children's Museum

On September 19, 2011, a group of Green Corps members presented at the Lugar Energy Summit, held at the Indianapolis Children's Museum. The Lugar Energy summit is an event in which Indiana students learn how energy is generated, how we can conserve energy in our

homes and at school, and how to reduce their environmental footprint.

Green Corps members presented to groups of students about Super Bowl environmental programs, including tree planting, the 1st & Green program, the Green Corps and recycling and reusing items, and learned how they can use the lessons of those programs to change their own environmental actions.

Students made bracelets out of recovered material from the RCA dome roof as an example of material reuse and reducing environmental impact.



Green Corps members participating in the Lugar Energy Summit included:

- Shelby Fults, Beech Grove High School
- Ellen Jarvis, Brownstown Central High School
- Seth Metcalf Western High School
- Annalee Patel Daleville Junior Senior High School
- Thomas Patterson Franklin Central High School
- Halle Shine, Homestead High School
- Kole Smith, Clay City Junior Senior High School
- Marisa Steinbach Southside High School
- Brianna Stutts, Lawrence Central High School
- Megan Yates, Bedford North Lawrence High School
- Abby Zeitler, Wheeler High School





## **Recycling Surveys at Lucas Oil Stadium**

Green Corps members were invited to assist with an EPA grant-funded project to improve recycling at Lucas Oil Stadium. Ashlee Kilpatrick of the Indianapolis Office of Sustainability invited Green Corps members to participate in a waste audit and recycling surveys to gauge patrons' awareness of recycling availability at the stadium. They attended several events at the Stadium, including Colts games and high school football games. At one Colts game, Green Corps members evaluated trash and recycling receptacles to determine what and how much recyclable material was being disposed of in the garbage, and which materials were incorrectly being deposited in recycling bins.

Green Corps members administered recycling surveys to event attendees, questioning them upon entry with the question of whether or not they were aware that recycling was available at the Stadium. Responses were tallied and ultimately used to determine that additional signage and messaging would increase visitors' awareness of recycling bins in the stadium and lead to more recyclable materials being collected.

Green Corps members participating in the recycling surveys and waste audit at Lucas Oil Stadium included:



- Elizabeth Alexander, Carmel High School
- Gigi Cabello, Ben Davis High School
- Ali DeHart, Southport High School
- Savannah Mitchell, Danville Community High School
- Thomas Patterson, Franklin Central High School
- Vanessa Richmond-Jones, Key Learning Community
- Katie Russell, Tri-West High School
- Trent Sommers Decatur Central High School
- Corey Smith, Perry Meridian High School
- Brittany Tatlock, Mt. Vernon High School
- Sidney Vieck, South Knox Middle High School







## **Recycling Projects**

 Sierra Browning of Noblesville High School organized students to carry out recycling programs at home football games and organized an electronics recycling drive. As seen in the photo, the recycling efforts collected a large quantity of recyclables. Sierra also hosted several "Easy Green Tips" videos.



Sarah Cheatham of South Putnam High School installed recycling bins in her school to make beverage container recycling easy and accessible.





3. Ariana Collins of Indianapolis Metropolitan High School saw that while beverage container recycling was available in her school, there was a need for paper recycling. Ariana worked with the Host Committee to provide 1st & Green paper recycling containers for every classroom in her school.



4. Claire Hatton of Washington High School installed recycling bins in her high school.

5. Connor Reed of Columbia City High School installed recycling bins in his high school and at school sporting events.



- 6. Tony Stenulson (not pictured) of Boone Grove High School organized an electronics recycling drive.
- D.J. Hughes of Blue River Valley Junior Senior High School received recycling bins through a grant from the Indiana Recycling Coalition and the ALCOA Foundation. D.J. also won the 1st & Green Challenge



as the individual who reduced their carbon emissions the most.



- 8. Taylor Johnson of Batesville High School (Taylor, second from left) installed recycling bins in her high school.
- Rachel Harder of Shoals Junior Senior High School received recycling bins from an ALCOA Foundation grant through the Indiana Recycling Coalition to install ClearStream recycling containers at her high school and the Learning Center.





## **Clean-Up Projects**

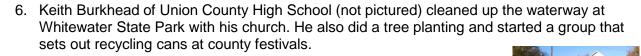
1. Anna Barczynski of Borden High School (pictured, right) picked up glass at the Borden County Community Park, collecting a total of 35 pounds! These materials will be recycled, and their removal will make the park a safer place for visitors to enjoy.



2. Courtney Condon of Frankton High School (pictured, right) helped to keep the White River clean by rowing a canoe and collecting litter from the river while participating in a White River Clean-up Day.



- 3. School (not pictured) organized a roadside clean-up project in her community.
- 4. Lauren Harrison of Lawrenceburg High School (not pictured) organized a community cleanup in Milan, Indiana.
- Andrea Pfaffenbach of North Miami High School, Grant Keaffaber of Southwood High School, and Paige Stayton (pictured right) of Cowan Junior Senior High School) participated in clean-up days on the White River.



- 7. Grant Koenig of Franklin Community High School organized a community clean-up day with his church. (Grant pictured center).
- 8. Kole Smith of Clay City Junior Senior High School (pictured below) organized a highway clean-up project and organized a hearing aid/eyeglass recycling drop-off program. He also organized an electronics recycling drive with RecycleForce which collected approximately 10,000 pounds of electronics! Kole also presented about the Green Corps at the Lugar Energy Summit at the Indianapolis Children's Museum and was selected as one of the XLVI Faces, representatives of the Super Bowl's impact in Indianapolis.







## **Educational Projects**

1. Gabriella (Gigi) Cabello of Ben Davis High School participated in a recycling presentation and recycling relay activity with a class of students at Garden City Elementary School, providing the students with 1st & Green water bottles. Gigi also participated in the environmental education day at Mary Bryan Elementary School. Gigi was chosen as one of the XLVI Faces, representatives of the Super Bowl's impact in Indiana.





2. LaRae Cruz Eco Club at the hig environmentally-the

2. LaRae Cruz of Greenfield Central High School started an Eco Club at the high school and is continuing to do environmentally-themed projects with these students.

3. Allysen Rospopo of Argos Junior Senior High School created "green" cleaning products and taught fellow students how to do so. Using these products will reduce exposure to toxic chemicals and make homes healthier places to live.





- 4. Halle Shine of Homestead High School organized an Eco Week at her high school. Classrooms participated in a week-long recycling contest to see who could collect the most recyclable materials. The winning classroom received 1st & Green reusable water bottles. Each day in the week had a different environmental theme, such as "Meatless Monday", "Wear Green Wednesday" and "Thrifty Thursday".
- 5. Katie Russell of Tri-West High School organized an Eco Craft morning at her high school. She showed students how to make scarves and other items from old t-shirts.





- 6. Rachel Huser of Western Boone Junior Senior High School (not pictured) started the Earthly Athletes Club at her high school and started recycling at sports events.
- Gunner Kiel of Columbus East High School did his senior project on sustainability and worked with a fourth grade class on recycling projects.



- 8. Stephanie McCutcheon of West Washington Junior Senior High School (not pictured) gave a speech on recycling and submitted an essay on recycling to her local newspaper.
- 9. Seth Metcalf of Western High School gave a class presentation on the 1st & Green program and Super Bowl environmental initiatives.
- Christopher Miner of Lawrence North High School did a soil remediation project, bringing leaves and compost to a garden to restore the nutrients in the soil.



- 11. Slaney Neisen of Fishers High School (not pictured) took a "no phosphorus" pledge and planted trees in her backyard. Slaney also hosted several "Easy Green Tips" videos.
- 12. Savannah Mitchell of Danville Community High School filmed, produced, and edited a video on organic gardening and created an organic garden in her backyard.
- 13. Thomas Patterson of Franklin Central High School participated in the Super City Clean & Green Day on October 22, 2011 by cleaning up Pride Park in Indianapolis. Thomas also conducted recycling surveys at Lucas Oil Stadium on multiple occasions.





# **APPENDIX D**

# WARM RESULTS FOR ELECTRONICS RECYCLING

1/25/12

GHG Emissions Analysis - Summary Report

GHG Emissions Analysis — Summary Report

(Version 11, 8/10)

Analysis of GHG Emissions from Waste Management

Total Change in GHG Emissions: (MTCO2E):	-57
GHG Emissions from Alternative Waste Management Scenario (MTCO2E):	-56
GHG Emissions from Baseline Waste Management Scenario (MTCO2E):	1

		Ва	aseline Scena	ario			Alternative Scenario					
Material	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Total MTCO2E	Tons Source Reduced	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Total MTCO2E	Change (Alt - Base) MTCO2E
Personal Computers	0	25	0	N/A	1	0	25	0	0	N/A	-56	-57

Note: A negetive value indicates an emission reduction; a positive value indicates an emission increase.

a) For an explanation of the methodology used to develop emission factors, see EPA report: Greenhouse Gas Emissions from Management of Selected Materials in Municipal Solid Waste (EPAS90.4-98-013) — exaliable on the Internet at <a href="http://www.aps.gov/climated/enge/wed/-easte/reports.html">http://www.aps.gov/climated/enge/wed/-easte/reports.html</a> Please note that some of the emission factors used to generate these results do not match those presented in the report due to recent additions and/or revisions.

b) Emissions estimates provided by this model are intended to support voluntary GHG measurement and reporting initiatives.

c) Total emissions estimates provided by this model may not sum due to independent rounding.



# **APPENDIX E**

# **WARM RESULTS FOR SUPER BOWL 2012 RECYCLING**

GHG Emissions Analysis - Summary Report

Page 1 of 1

#### GHG Emissions Analysis — Summary Report

Analysis of GHG Emissions from Waste Management for Superbowl 2012 Envr.

GHG Emissions from Baseline Waste Management Scenario (MTCO2E): :-13 GHG Emissions from Alternative Waste Management Scenario (MTCO2E): -513

Total Change in GHG Emissions: (MTCO2E):

Material		Ва	seline Scena	ario	Baseline Scenario							
	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Total MTCO2E	Tons Source Reduced	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Total MTCO2E	Change (Alt - Base) MTCO2E
Alurninum Cans	0	a	25	N/A	1	O.	25	0	0	N/A	-222	-224
Glass	0	a	24	N/A	1	0	24	0	0	N/A	-7	-8
PET	0	0	15	N/A	19	0	15	0	0	N/A	-17	-36
Corrugated Containers	0	0	79	N/A	-38	0	79	0	0	N/A	-246	-207
Food Scraps	N/A	0	23	D	-3	23	N/A	0	0	0-	0	3
Mixed Paper (general)	0	0	4	N/A	-2	N/A	4	0	0	N/A	-14	-12
Mixed Plastics	a	0	7	N/A	g	N/A	7	0	0	N/A	-7	-16

Note: A negletive value indicates at critical in reduction, a positive value indicates an emission increase.

a) For an explanation of the methodology used to develop emission factors, we EPA report: Greenhouse Get Envisions From Namegement of Selected Materials in Municipal Safet Waste (EPAGGE-8-60-011) —
available on the Privace of the high privace, use, and available on the privace of the embasion factors used to generate these results do not make those presented in the report due
to record obtained only for criticate.

b) Envisions existence provided by the model are interested to support voluntary EMS measurement and reporting initiatives.

c) Total emissions extensions extensions provided by this model are interested to except the indicate provided by the model risky not sure to be independent rounding.



# **APPENDIX F**

# SUPER BOWL RECYCLING WARM MODEL WASTE METRICS

[Equivalencies calculated at: <a href="http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results">http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results</a> ]
500 MTCO2e is equivalent to: [Click on the question mark ? link to read the explanation of that particular calculation. Read about all calculations. ]
Annual greenhouse gas emissions from passenger vehicles ? (click to read more about this calculation)
CO <sub>2</sub> emissions from gallons of gasoline consumed ?
CO <sub>2</sub> emissions from 1,163 barrels of oil consumed ?
CO <sub>2</sub> emissions from 6.6 tanker trucks' worth of gasoline ?
CO <sub>2</sub> emissions from the <i>electricity</i> use of 62.3 homes for one year ?
CO <sub>2</sub> emissions from the <i>energy</i> use of 43.3 homes for one year ?
Carbon sequestered by 12,821 tree seedlings grown for 10 years ?
Carbon sequestered annually by acres of pine or fir forests ?
Carbon sequestered annually by acres of forest preserved from deforestation ?
CO <sub>2</sub> emissions from 20,833 propane cylinders used for home barbeques ?
CO <sub>2</sub> emissions from burning 2.7 railcars' worth of coal ?
Annual CO <sub>2</sub> emissions of 0.0001 coal fired power plants ?